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THESIS

**FUNDAMENTAL APPLIED SKILLS TRAINING
(FAST) PROGRAM MEASURES OF
EFFECTIVENESS**

by

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March 1996

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i

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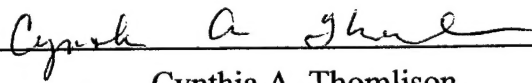
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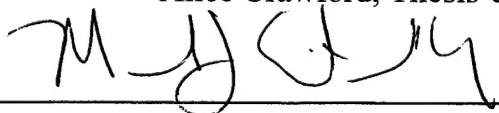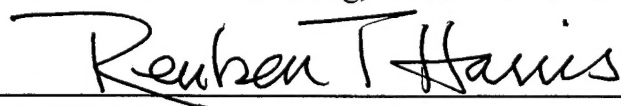**NAVAL POSTGRADUATE SCHOOL**
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iii

ABSTRACT

This thesis attempts to measure the effectiveness of Fundamental Applied Skills Training (FAST), a program designed to help selected Navy recruits succeed in Basic Military Training (BMT) by improving their literacy skills. The study first analyzes whether completion of FAST is related to the subsequent completion of BMT for recruits who entered the Navy in Fiscal Years 1992 and 1993. FAST participants and other recruits with relatively low literacy skills from these two recruit cohorts are then compared on the basis of additional success indicators: completion of the first term of service and advancement toward higher rank (E-4). Study results suggest that participation in FAST is related to an increased probability of completing BMT and generally higher success chances in the Navy during the first term of service. Limitations in the data are addressed along with recommendations for further study.

TABLE OF CONTENTS

x

LIST OF TABLES

I. INTRODUCTION

A. BACKGROUND

Poor reading skills are a fact of life in America. One estimate indicates there are 23 million people reading below the eighth-grade level, and an additional 11 to 14 million persons who read at less than a fourth-grade level (Business Council for Effective Literacy, 1990). This is a substantial segment of the American adult population. In his eye-opening book, Illiterate America, Jonathan Kozol states:

> The largest numbers of illiterate adults are white, native-born Americans. In proportion to population, however, the figures are higher for blacks and Hispanics than for whites. Sixteen percent of white adults, 44 percent of blacks, and 56 percent of Hispanic citizens are functional or marginal illiterates. Figures for the younger generation of black adults are increasing. Forty-seven percent of all black seventeen-year-olds are functionally illiterate (Kozol, 1985).

Many people classified as illiterate are high school graduates. Functional illiteracy, as described by a national panel of experts, is the inability to use "printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (Kirsch, Jungeblut, Jenkins, and Kolstad, 1993). As the former Governor of North Carolina, James B. Hunt, observed in testimony before the U.S. House of Representatives Subcommittee on Science, Research and Technology in 1989: "About 25 percent [of all high school graduates] still lack the minimum requirements to work in the workplace of today.... At the same time, the workplace is demanding increasingly advanced technological skills" (U.S. Congress, House, 1989). This has been confirmed in several reports on workplace literacy, including the highly influential Hudson Institute report on likely trends of the future:

Everyone who will be working in the year 2000 has already been born, and [at least] two-thirds of them are at work today.... The workers who will join the labor force between now and the year 2000 are not well-matched to the jobs that the economy is creating. A gap is emerging between the relatively low education and skills of new workers (many of whom are disadvantaged) and the advancing skill requirements of the new economy (Johnston and Packer, 1987).

This, then, is the labor pool from which the military services will enlist personnel for the next several years. What effect does this have on the Navy? Considering the state-of-the-art technology and the sophistication of today's weaponry, the most dangerous in the history of mankind, one would expect the Navy to be staffed with high-quality personnel who have average or above-average reading skills. This may not be the case, as Laurence (1989) notes: "Quality personnel, able to meet the demands created by increasing military specialization and complex weaponry may become a scarce resource."

In 1990, it was estimated that about 25 percent of all Navy recruits read below the ninth-grade level, even though the majority of these individuals were high school graduates (Spendley, 1990). These marginal reading skills are insufficient, in that readability analysis of basic training manuals has determined a need for tenth-grade skill levels, at a minimum (McDaniel, Mathews and Schalow, 1986).

The issue of poor reading skills is not new to the military, nor are attempts to improve these skills. During the Vietnam era, basic skills training was integrated into an "A" school curriculum to show the effectiveness of the functional context approach (Sticht, Armstrong, Hickey, and Caylor, 1987). In a report to the Ford Foundation, Hunter and Harman (1979) described literacy programs conducted within the Department of Defense during World War II as "the most sophisticated education delivery system in the country...."

Today, the Navy has several programs for reaching and assisting individuals who are deficient in basic skills. These programs may be attended by new recruits or career sailors, men or women, young or not so young, of any race, religion, or ethnic background, and who work in virtually every rate and rating the Navy has to offer. Program attendance may be mandatory or voluntary, depending on when the deficiency is discovered and to what level literacy skills are lacking.

One program, Functional Applied Skills Training (FAST), is taught prior to the beginning of Basic Military Training (BMT). Individuals are identified for the FAST program as a result of aptitude test scores that indicate inadequate literacy skills. The FAST program has been in existence in various forms and under different names since World War II. The current version was revised in 1991 and governs the program in effect today.

B.   EXISTING PROGRAM

The purpose of FAST is facilitate completion of BMT by providing basic skills training for recruits in reading, Navy vocabulary, graphic aids interpretation, and study skills. Speaking and listening skills are also taught to recruits with English language deficiencies.

The need for basic skills training is determined by a new recruit's scores on the Armed Services Vocational Aptitude Battery (ASVAB), specifically in the category of Verbal Expression (VE). This category measures the potential for verbal activities, and is formed from a composite of two ASVAB subtests, Word Knowledge (WK) and Paragraph Comprehension (PC). The number of correct responses on both subtests is added together and converted to a standard score equivalent. The maximum score that can be attained in VE is 62, in which all 50 questions of the subtests are answered correctly. If a recruit scores 42 or less in VE, assignment to FAST is mandatory. Recruits who score between 43 and 46 in VE may be assigned to FAST by the Recruit

Training Center (RTC) Commander as space permits. The FAST program begins on the first day of training at RTC. Other recruits may be assigned to FAST regardless of their VE scores if they fail an academic examination any time during BMT.

The FAST program differs in length according to level of need. Once assigned to FAST, recruits are administered the English Comprehension Level (ECL) Examination. Recruits who respond correctly on more than 80 percent of the questions are considered proficient in comprehension and attend a three-week FAST course called the Navy Reading curriculum. A score of 80 percent or less indicates language deficiencies, which places recruits in the Verbal Skills curriculum. When combined with portions of Navy Reading, the Verbal Skills curriculum lasts five weeks. Recruits who attend FAST as a result of academic examination failure are assigned a one-week Study Skills curriculum.

Recruit progress during FAST is evaluated by the use of criterion-referenced tests and quizzes that measure the skills addressed within the covered material. Upon completion of the curriculum, if progress is insufficient, (e.g., the recruit has not raised his or her verbal skills as measured by the tests), the recruit receives a Student Action Code (SAC) of P2* to indicate attendance in the FAST program. If the recruit achieves an increased level of verbal skills, the SAC of P1* is awarded, which indicates successful academic graduation from FAST. Upon completion of the FAST program, recruits are assigned to BMT.

There is no academic attrition allowed from the FAST program, so course completion data cannot be used to assess the effectiveness of the program. Currently, there is no method in place to determine if the FAST program fulfills the governing instruction's direction for remedial education programs: "Enlisted fundamental skills training exists to ensure that Navy personnel possess the prerequisites to complete job

4

training, function acceptably in the occupational environment, and achieve career advancement." (OPNAVINST 1510.11)

C.   OBJECTIVES AND RESEARCH QUESTIONS

This thesis examines the effectiveness of the FAST program. The principal objective of this thesis is to determine if completion of the FAST program is related to success in recruit training as directed by the governing instruction for remedial education programs. This research explores the relationship between successful completion of FAST and the rate at which attendees fail (attrite or separate from recruit training and from the Navy) and succeed (progress through all phases of training and through the first enlistment), as compared with the failure and success rates of similar non-attendees in the same arena. The following research questions are addressed in the thesis:

1.   Do participants of the FAST program attrite from RTC and the Navy at a different rate than non-participants of a similar cohort?

2.   Do participants of the FAST program achieve different measures of success (e.g., advancement to E-4) during their first enlistment than non-participants of a similar cohort?

3.   Do specific demographic characteristics (e.g., race) influence the achievements of FAST participants?

D.   METHODOLOGY

The data required to create the necessary data set are from the Defense Manpower Data Center (DMDC) Enlisted Master File (EMF) and Enlisted Active-duty Loss file. Data elements include VE score, FAST SAC, paygrade, time in service, loss code, race, gender, ethnic code, and education. Data are analyzed to determine success and failure rates for FAST attendees and for similar cohorts not

5

attending FAST, and correlations between success/failure and the demographic variables.

E.   ORGANIZATION OF STUDY

The next chapter provides an assessment of previous literature that is relevant to the study. The third chapter discusses the methodology used to determine the effectiveness of the FAST program through failure and success rates. The fourth chapter presents the data and analysis, and the final chapter provides the summary, conclusions, and recommendations of the study.

II. LITERATURE REVIEW

A.   APTITUDE AND ENLISTMENT STANDARDS

1.   Armed Services Vocational Aptitude Battery (ASVAB)

Aptitude tests have long been used by civilian organizations and the military as an acceptable predictor of individual potential and the ability to learn. The Department of Defense has used the ASVAB, with various modifications, since January 1976, as the service-wide standard to determine enlistment eligibility and potential job assignment (Eitelberg, 1988). The ASVAB consists of ten subtests, which, when scored collectively and in various combinations,

> measures developed abilities and predicts what a person could accomplish with training or further education. In addition, it provides measures of general learning ability that are useful for predicting performance in academic areas (Department of Defense, 1992).

2.   Armed Forces Qualification Test (AFQT)

The Armed Forces Qualification Test (AFQT) is a composite of one combination of ASVAB subtests, specifically, the Word Knowledge (WK), Paragraph Comprehension (PC), Arithmetic Reasoning (AR), and Math Knowledge (MK) subtests, using the formula 2(WK+PC)+AR+MK. The AFQT "serves as the primary enlistment screen and indicator of recruit quality" (Laurence, 1988). AFQT scores are generally reported in percentiles and in terms of traditional groupings, or categories. These categories, shown in Table 1, are described in the Report to the House and Senate Committees on Armed Services: Defense Manpower Quality (Department of Defense, 1985).

Table 1. AFQT Categories by Percentile Scores

AFQT Category	AFQT Percentile Score	Level of Trainability
I	93-99	Well above average
II	65-92	Above average
IIIA	50-64	Average
IIIB	31-49	Average
IV	10-39	Below average
V	1-9	Well below average

Source: Department of Defense, 1985.

Categories I, II and IIIA are considered "Upper Mental Group" (UMG) scores; categories IIIB, IV and V are "Lower Mental Group" (LMG) scores. Navy enlistment policy in 1996 prohibits anyone scoring in category IV from entering the service; and persons in category V are prohibited from enlisting by law. Additionally, 95 percent of all entering recruits per year must be high school diploma graduates (HSDG), and a minimum of 62 percent per year must come from the UMG categories.

The use of AFQT scores as criteria for enlistment eligibility has been validated through extensive research. For example, "successful completion of [initial training courses at Army training centers] course standards was highly related to AFQT scores, indicating high aptitude subjects were more likely to complete the course requirements on the first enrollment" (Hogan, Arneson, and Salas, 1987). The complete set of validity data for military service occupations is found in the Armed

Services Vocational Battery (ASVAB): Integrative Review of Validity Studies (Welsh, Kucinkas, and Curran, 1990).

3. Verbal Expression (VE)

The VE score is developed from the subtests WK and PC, which are components of the AFQT score as well. The sum of these two subtests provides a measure of potential for verbal activities, including reading, speaking, and listening abilities. As part of the validation process for this testing method, the estimated reading level of the test questions have been computed.

> By the sixth grade, 96% of ASVAB test words typically have been encountered. In all of the tests with verbal content, except Word Knowledge, the sixth-grade percentages ranged from 95 to 100. The estimate for Word Knowledge questions was 83%. More than 98% of the test words have been encountered by the eighth grade, with test percentages ranging from 98 to 100, except for Word Knowledge (93%) (Department of Defense, 1992).

The Navy uses conversion tables to derive standard score equivalents from the raw number of correct answers: a score of 42 is the equivalent of answering correctly 28 out of 50 times, or 56 percent of the time. Participation in the FAST program is mandatory for recruits who attain a score 42 or less in the VE composite. The upper limit on recruits entering FAST (46) equates to answering correctly 66 percent of the time.

B. LOW APTITUDE PERSONNEL IN THE MILITARY

The Navy currently uses only the VE composite score to determine the adequacy of reading skills and subsequent entry into the FAST program. There are virtually no previous studies that analyze military performance based on the VE composite score alone. In the past, reading or literacy skills were measured by the results of either reading tests or aptitude tests such as the AFQT. Therefore, a review

of past performance of low aptitude personnel is presented as a proxy for research on personnel with inadequate basic skills. This review is intended to provide historical perspective on current policies, i.e., enlistment requirements of aptitude and HSDG.

Standards for enlistment differ by service and by need. Law prohibits only those in Category V from enlisting. Other restrictions are imposed or lifted as necessary to meet manpower requirements (Eitelberg, 1988). The next section focuses on examples from the late 1960s and forward.

1. Project 100,000

In the late 1960s, a social experiment called "Project 100,000" was implemented, and the military services accepted 354,000 young men from 1967-1971 who would otherwise have been ineligible to enlist due to inability to meet physical standards, or aptitude and education levels (Ramsberger and Means, 1987). Table 2 lists the standards as they existed prior to "Project 100,000" and Table 3 shows the standards as revised for "Project 100,000."

Table 2. Enlistment Standards Prior to "Project 100,000"

High School Diploma Graduate	Minimum AFQT Score	Additional Testing
Yes	16	None
Yes	10-15	GT>80 and 2 AQBs>90
No	31	None
No	10-30	GT>80 and 2 AQBs>90

Source: Adapted from Laurence and Ramsberger, 1991.

Note: General Technical (GT) is one composite of the Army Qualification Battery (AQB).

Table 3. Standards During "Project 100,000"

High School Diploma Graduate	Minimum AFQT	Additional Testing
Yes	10	None
No	31	None
No	16-30	1 AQB>90
No	10-15	2 AQBs>90

Source: Adapted from Laurence and Ramsberger, 1991.

Note: General Technical (GT) is one composite of the Army Qualification Battery (AQB).

Over 90 percent of the men who were otherwise ineligible for service, entered under the lowered aptitude and education standards, and were classified as "New Mental Standards" (NMS) men. A number of research studies have focused on this experiment and its outcome. A 1987 study indicated that the NMS men performed less well when compared to a control group of the next higher aptitude category (AFQT Category III):

> NMS men were more likely than control group members to be recycled through basic training, and to need remedial training. They were less likely to complete skill training, and to be eligible for reenlistment (Ramsberger and Means, 1987).Additionally, in another study, NMS men were found to exhibit higher attrition prior to expiration of their first enlistment, and lower advancement to E-4, than a control group of average aptitude personnel from the same period (Sticht, 1985).

2. The ASVAB Misnorming Period

The misnorming of the ASVAB occurred from 1976-1980. This period began with a new (at the time) version of the ASVAB, and an updated conversion table, which converted raw scores into percentiles based on the range of scores relative to the national youth population (Department of Defense, 1985). A flaw in the conversion calculation was not discovered until late 1979, and Congress was informed of the problem early in 1980 (Eitelberg, 1988). Corrections were made by the end of the year, but during the period of the misnorming, hundreds of thousands of individuals entered the military with an incorrect or inadequate AFQT score for the service entered.

Those admitted and later determined to have been ineligible were designated as "Potentially Ineligible" (PIs) in later research efforts (Eitelberg, 1988). These efforts compared the PIs to a control group comprised of the lowest acceptable aptitude and education group at the time. One study analyzed attrition, promotion, reenlistment eligibility, and reenlistment propensity, with the following results:
There was little variance in the performance of the PIs and the control groups on any of the four variables. This would indicate that minor adjustments to selection standards are unlikely to have a major impact on the Services... (Ramsberger and Means, 1987).

3. The 1980s and Forward

Studies have been conducted on the interrelationships of aptitude and education with numerous variables, including attrition, advancement, job complexity, delayed entry program behavior, and the need for enlistment waivers (Cooke and Quester, 1989; Laurence, 1988). Results are mixed, depending on service requirements and the variable under examination. Reviewing aptitude and attrition, Laurence (1988) found that Category I recruits tend to leave the military at the lowest

12

rate, and those in Category IIIB tend to leave at the highest rate, for all services. This is confirmed by Cooke and Quester (1989), with amplifying information that Category IV HSDGs tend to complete their service obligations at a higher rate than Category I-IIIB non-HSDGs.

The analysis of aptitude and advancement for Navy enlisted personnel provides similar results:

> For promotion to Petty Officer, Third Class (E-4), AFQT Category I recruits showed a high at 80 percent and AFQT Category IIIB recruits showed a low of 60 percent. The range for promotion to Petty Officer, Second Class (E-5) was from 30 percent for Category I personnel to 6 percent for Category IIIB personnel (Laurence, 1988).

In comparison, 64 percent of eligible Category IIIA recruits promoted to E-4, and 9 percent promoted to E-5 (Laurence, 1988).

These research efforts indicate, overall, a higher potential for satisfactory military service among personnel who have higher aptitude test scores. This study focuses specifically on individuals with low verbal skills, and the data analysis presented in the next two chapters explores the potential for satisfactory military service among those with low verbal skills.

III. METHODOLOGY

A.   THE DATA SET

The data set used in this project was created by DMDC specifically for this project. Three record files were merged to provide the necessary data elements. First, the Active-duty Non-prior Service Accession file was used to identify all recruits entering the Navy during Fiscal Years (FYs) 1992 and 1993, resulting in 120,620 records. These records were matched by social security number with the Enlisted Active-duty Loss File for any loss data that existed. Finally, the Enlisted Master File, which is updated monthly, was reviewed for the month of April 1995 and, based on social security numbers, merged as appropriate to provide recent information on time in service and paygrade. This data set was then split into two subsets by fiscal year, for each accession cohort.

Data elements available in the merged file included: date of accession, AFQT percentile, VE score, education, racial ethnic code, gender, FAST SAC code (if attended), "A" school indicator (if attended), pay grade, months of active service, active duty indicator (if on active duty as of April 1995), loss date (if applicable), and loss Separation Program Designator (SPD) if applicable.

The data subsets initially contained all recruits who entered the Navy in each fiscal year, without regard to individual test scores. To ensure the measures used to evaluate success and failure were equitable between the FAST groups and the control groups, the control groups were limited to recruits with similar verbal skill abilities, as measured by the standard score attained in the VE composite category. An upper limit of 50 in VE ensured that the FAST attendee groups contained the majority of recruits who attended FAST. Then, the subsets were limited to personnel in AFQT

15

mental category IIIB, which contained over 94 percent of all recruits who attended the FAST program.

The remaining data subsets contained the records of 12,844 recruits accessed in FY92, and 12,869 recruits accessed in FY93. Of the FY92 cohort, 1,852 attended the FAST program; and of the FY93 cohort, 1,471 recruits attended FAST. Demographics for the control group are shown in Table 4. Each demographic category sums to 100 percent of the cohort described. Corresponding demographics for the FAST attendees are shown in Table 5.

Table 4.   Selected Demographic Characteristics of the FY92 and FY93 Accession Cohorts

Characteristic	FY92 Cohort Number (Percent)	FY93 Cohort Number (Percent)
White	6,512 (50.7)	6,294 (48.9)
Black	4,120 (32.1)	4,331 (33.7)
Hispanic	1,537 (12.0)	1,550 (12.0)
American Indian/Other	147 (1.1)	131 (1.0)
Asian Pacific Islander	528 (4.1)	563 (4.4)
Male	11,556 (90.0)	11,440 (88.9)
Female	1,288 (10.0)	1,429 (11.1)
VE 42 or below	1,122 (8.7)	1,145 (8.9)
VE 43 - 46	3,945 (30.7)	4,079 (31.7)

Table 4 (Continued)

Characteristic	FY92 Cohort Number (Percent)	FY93 Cohort Number (Percent)
VE 47 - 50	7,777 (60.6)	7,645 (59.4)
"A" school Graduate	4,944 (38.5)	2,862 (22.2)
No "A" school or Non-graduate	7,900 (61.5)	10,007 (77.8)

Source: Revised from the data provided by the Defense Manpower Data Center.

Table 5.   Selected Demographic Characteristics of FAST Attendees in the FY92 and FY93 Accession Cohorts

Characteristic	FY92 Cohort Number (Percent)	FY93 Cohort Number (Percent)
White	723 (39.0)	569 (38.7)
Black	694 (37.5)	597 (40.6)
Hispanic	254 (13.7)	176 (12.0)
American Indian/Other	24 (1.3)	18 (1.2)
Asian Pacific Islander	157 (8.5)	111 (7.5)
Male	1,677 (90.6)	1,254 (85.2)
Female	175 (9.4)	217 (14.8)

Table 5 (Continued)

Characteristic	FY92 Cohort Number (Percent)	FY93 Cohort Number (Percent)
VE 42 or below	782 (42.2)	424 (28.8)
VE 43 - 46	772 (41.7)	781 (53.1)
VE 47 - 50	298 (16.1)	266 (18.1)
"A" school Graduate	698 (37.7)	237 (16.1)
No "A" school or Non-graduate	1,154 (62.3)	1,234 (83.9)

Source: Revised from data provided by the Defense Manpower Data Center.

The high school diploma graduate rate remained constant throughout the data subsets (over 96 percent), and therefore was not useful as a factor to determine success.

The loss SPD data element contained over 140 different loss explanations within 15 major categories. Although this data element would have provided specific information on the reasons for separation, it was not used in the study. The large volume of subgroups that would have been developed using this data element would have diminished any relational effect of the FAST program to progress through a first enlistment.

The number of FAST attendees with a VE score of 42 or less did not equal the total number of recruits with a VE score of 42 or less. Although the governing directive for the FAST program indicated mandatory attendance for all recruits scoring at or below 42 on the VE, a number of recruits (1,227) with qualifying scores

were apparently not enrolled in the program. No explanation for this has been identified.

B.   STATISTICAL METHODOLOGY

Categorical modeling of logistic regression models, based on maximum-likelihood estimates, was used to analyze recruits' progress through the Navy. This method was selected for the study because the logistic regression technique uses a binary proxy variable that captures the dependent behavior (such as, survive recruit training or not survive recruit training), where the positive behavior is recorded as 1, and the negative behavior is recorded as 0. Categorical modeling provides contingency tables that permit evaluation of each independent variable as a unique identifier, without effects of other variables intruding. The output of the model for this study describes the characteristics for each distinct category of personnel and the probable effects on the dependent variable. The statistical software used in this project was SAS release 6.07, developed by the SAS Institute, Inc., Cary, North Carolina.

The validity of the independent variables selected in creating the logistic regression model was confirmed by a review of the probability levels of the parameter estimates. The probability levels indicated, for each independent variable, whether the model outcome could have been achieved randomly. The significant levels of probability for the models used in this study were set at less than or equal to 0.01 (1 percent).

The validity of the logistic regression equation was conducted using a Chi-square distribution. This distribution pattern was used to determine if the models sufficiently explained the variance that existed in the data. The Chi-square results were reported as a likelihood ratio, which were set at greater than 0.01 (1 percent) for this study.

C. ACHIEVING THE OBJECTIVE

As previously observed, the objective of the thesis is to explore the effectiveness of FAST in helping recruits complete recruit training. A statistical model was developed on the dependent variable, survive recruit training, with a positive response (remain in the Navy long enough to complete recruit training) represented by 1, and a negative response represented by 0. The dependent variable was created from the data element time in service, where three months active duty was set as sufficient time to complete the FAST program (if attended) and recruit training, and any additional time for required remediation.

The independent variables used in the model included VE score, where VE less than 43 was represented by 0, VE from 43 to 46 was represented by 1, and VE from 47 to 50 was represented by 2. The variable FAST was shown by 0 for those who did not attend, 1 for those who did not exhibit an increase in verbal skill abilities, and 2 for those who successfully completed the program. Racial/ethnic status was indicated by 0 for White, 1 for Black, 2 for Hispanic, 3 for American Indian and Others, and 4 for Asian/Pacific Islander (API). Gender was shown as 0 for female, and 1 for male.

D. DIFFERING ATTRITION RATES

To establish whether participation in the FAST program could effect the rate at which personnel left the Navy, a model was developed around the time in service element, constructed for 12 months (one year) of active duty, where 1 signified having served one year on active duty, and 0 meant separation from the Navy prior to completing one year. The independent variables used were identical to those in the survival model, with one addition. The "A" school (initial skills training) completion indicator was used, where 1 indicated successful completion of an "A" school, and 0 indicated non-completion or non-attendance.

E.   DIFFERING SUCCESS RATES

To address the second research question, success was defined not only by having stayed in the Navy, but by promotion to paygrade E-4. A third model was developed on the promotion variable, using only the cohort from FY92. This ensured that all personnel had sufficient time in service to attempt promotion to E-4, which has mandatory time-in-rate requirements. The minimum time required to be eligible for E-4 is 18 months, with few exceptions. The dependent variable was created where 1 indicated personnel in paygrade E-4, and 0 indicated personnel in paygrades E-3 and below. Independent variables were identical to the variables used in the 12 months of service model.

IV. DATA ANALYSIS

A.   COMPLETION OF RECRUIT TRAINING

The first model was built to discover if differences existed in a recruit's ability to survive recruit training, based on participation in the FAST program. Regression analysis was conducted on each accession cohort separately, so the results are shown separately.

1.   FY92 Accession Cohort

In this study, the FY92 accession cohort contained 12,844 recruits. Of those, 10,591 completed recruit training, for a survival rate of 82.5 percent. The categorical modeling performed on this group showed that, when divided into subgroups based on FAST participation, there were differences in the survival rates. The survival rates for the subgroups containing variables that made significant contributions to completion of recruit training are shown in Appendix A. For the group who did not attend FAST, the survival rate was 81.9 percent. The group of recruits who attended FAST and successfully completed the course had a survival rate of 92.1 percent. The largest difference occurred for the group who attended FAST but did not achieve any increase in verbal skill abilities. Their survival rate fell to 17.4 percent. The probability values assigned to the parameter estimates, shown in Table 6, demonstrated significance in the FAST variable, such that successful completion of the FAST program was related to the increased survival rate.

The demographic variables also contributed to survival. Overall, the survival rate for the whites was 80.0 percent. Successful completion of FAST increased this rate to 91.4 percent. The overall survival rate for black recruits was 84.4 percent, and

23

Table 6.   FY92 Accession Cohort: Analysis of Maximum-Likelihood Estimates

Variable	Parameter	Estimate	Probability
Intercept		-0.997	0.001
VE score	< 43	-0.001	0.021
	43 - 46	0.100	0.171
	47 - 50	-0.099	0.031
FAST	Non-attend	-1.642	0.001
	No increase	-0.723	0.001
	Complete	2.365	0.001
Racial/	White	-0.427	0.002
Ethnic Group	Black	0.222	0.001
	Hispanic	-0.040	0.532
	Am. Indian	-0.166	0.035
	API	0.411	0.013
Gender	Female	0.182	0.001
	Male	-0.182	0.001

the rate increased to 92.2 percent for those who successfully completed the FAST program. Women had an overall survival rate of 86.3 percent, which increased to 96.7 percent upon successful completion of FAST. Men showed a similar survival

rate of 82.0 percent, which increased to 91.6 percent after successful completion of the FAST program. The estimated contribution of FAST to survival of other racial/ethnic groups, and of the VE score by itself, were not significant in this model.

The analysis of variance test for this model, shown in Table 7, did find that the model sufficiently explained the variance in the data.

Table 7. FY92 Survival Analysis of Variance

Variable	Degrees of Freedom	Chi-Square	Prob.
Intercept	1	109.38	0.001
VE Score	2	5.01	0.082
FAST	2	317.04	0.001
Racial/Ethnic Group	4	51.50	0.001
Gender	1	17.80	0.001
Likelihood Ratio	68	85.32	0.076

2. FY93 Accession Cohort

The FY93 accession cohort contained 12,869 recruits, of which 80.0 percent, or 10,294, completed recruit training. The categorical modeling performed on this group showed, as in the FY92 cohort, that differences occurred in the survival rates of recruits who attended FAST. These rates can be found in Appendix B. For non-attendees, the survival rate was 80.6 percent. The group of recruits who successfully completed FAST had a survival rate of 90.3 percent. The group who attended FAST without increasing their verbal skill abilities had a substantial decrease in their

25

survival rate, which dropped to 17.7 percent, similar to that noted for the FY92 cohort. This model's probability values are shown in Table 8, and indicate that FAST attendance was related to the increased survival rate.

Table 8.   FY93 Accession Cohort: Analysis of Maximum-Likelihood Estimates

Variable	Parameter	Estimate	Probability
Intercept		-0.988	0.001
VE score	< 43	-0.053	0.289
	43 - 46	0.084	0.154
	47 - 50	-0.030	0.449
FAST	Non-attend	-1.533	0.001
	No increase	-0.686	0.001
	Complete	2.219	0.001
Racial/	White	-0.549	0.002
Ethnic Group	Black	0.437	0.001
	Hispanic	-0.183	0.007
	Am. Indian	0.046	0.570
	API	-0.116	0.574
Gender	Female	0.885	0.011
	Male	-0.885	0.019

The demographic variables of the FY93 cohort behaved like those of the FY92 cohort in the statistical analysis. Overall, the survival rate for white recruits was 77.1 percent. Successful completion of FAST increased this rate to 87.4 percent. For black recruits, the overall survival rate was 81.6 percent, which increased to 90.9 percent for those who successfully completed the FAST program. Hispanic recruits had an overall survival rate of 83.3 percent, which increased to 92.5 percent upon successful completion of FAST. Gender was not a significant contributor to survival in the FY93 cohort, nor was VE score.

The analysis of variance test for this model, shown in Table 9, did find that the model sufficiently explained the variance in the data.

Table 9. FY93 Survival Analysis of Variance

Variable	Degrees of Freedom	Chi-Square	Prob.
Intercept	1	98.72	0.001
VE Score	2	2.31	0.314
FAST	2	272.58	0.001
Racial/Ethnic Group	4	76.35	0.001
Gender	1	5.62	0.019
Likelihood Ratio	66	68.70	0.386

B. FIRST-YEAR ATTRITION

1. FY92 Accession Cohort

The FY92 accession cohort initially contained 12,844 recruits, of which, 10,591 completed recruit training (a survival rate of 82.5 percent). The number of recruits who survived one year of service dropped to 9,888. This equated to an attrition rate (rate at which personnel exit the service prior to end of contract) of 23.0 percent for the first year of enlistment in the FY92 cohort. The logistic regression model output showed that there were apparent differences in the rates of attrition, located in Appendix C, between the FAST attendees and the non-attendees. For the group who did not attend FAST, the attrition rate was 23.7 percent. The group of recruits who attended FAST and successfully completed the course left the Navy at a rate of 12.7 percent. The largest difference occurred with the group who attended FAST but did not achieve any increase in verbal skill abilities. Their attrition rate increased to 87.0 percent. The probability values assigned to the parameter estimates, shown in Table 10, demonstrated significance in the FAST variable, such that successful completion of the FAST program was related to the lowered attrition rate.

Table 10.   FY92 Accession Cohort at One Year: Analysis of Maximum-Likelihood Estimates

Variable	Parameter	Estimate	Probability
Intercept		-0.994	0.001
VE score	< 43	0.052	0.052
	43 - 46	-0.001	0.996
	47 - 50	-0.052	0.213
FAST	Non-attend	-1.424	0.001

Table 10 (Continued)

Variable	Parameter	Estimate	Probability
	No increase	-0.728	0.001
	Complete	2.153	0.001
Racial/	White	-0.394	0.001
Ethnic Group	Black	0.252	0.001
	Hispanic	0.008	0.891
	Am. Indian	-0.166	0.021
	API	0.300	0.056
Gender	Female	0.223	0.001
	Male	-0.223	0.001
"A" School	Non-attend	-0.625	0.001
	Attend	0.625	0.001

The independent variable "A" school also contributed to the low attrition rate. For all personnel who attended "A" school in this cohort, the attrition rate was 11.1 percent. For those who successfully attended the FAST program and subsequently attended an "A" school, the attrition rate was the lowest evidenced: 9.3 percent. The attrition rate for personnel who had not attended an "A" school increased substantially, to 31.5 percent. This result was not surprising, as Navy "A" schools have been, and continue to be, a critical selling point in recruitment and retention in the Navy.

The demographic variables also contributed to lowered attrition. Overall, the attrition rate for white recruits was 26.0 percent. Successful completion of FAST dropped this rate to 13.4 percent. The overall attrition rate for black recruits was 21.8 percent, and the rate decreased to 12.9 percent for those who successfully completed the FAST program. Women had a similar change in attrition, from an overall rate of 20.0 percent, to 6.5 percent upon successful completion of FAST. Men had a similar decreased attrition rate, but by a smaller amount, from 23.4 percent overall, to 13.3 percent after successful completion of the FAST program. The estimated contribution of FAST to survival of the other racial/ethnic groups, and of the VE score by itself, were not significant in this model.

The analysis of variance test for this model, shown in Table 11, found that the model did not sufficiently explain the variance in the data, and that other factors needed to be included in the model.

Table 11.   FY92 Accession Cohort at One Year: Analysis of Variance

Variable	Degrees of Freedom	Chi-Square	Prob.
Intercept	1	98.31	0.001
VE Score	2	4.35	0.114
FAST	2	225.93	0.001
Racial/Ethnic Group	4	60.05	0.001
Gender	1	33.67	0.001
"A" School	1	568.20	0.001
Likelihood Ratio	122	174.57	0.001

2.   FY93 Accession Cohort

The FY93 accession cohort initially contained 12,869 recruits, of which, 10,294 survived recruit training (a survival rate of 80.0 percent). The number of recruits who survived one year of service dropped to 9,495, for an attrition rate of 26.2 percent for the first year of service for the FY93 cohort. The logistic regression model output showed again, that, when successful FAST participation was involved, differences occurred in the attrition rates. The attrition rates are located in Appendix D. For the group who did not attend FAST, the attrition rate was 26.7 percent, which dropped to 15.3 percent after successful completion of FAST. The group who attended FAST but did not achieve any increase in verbal skill abilities maintained the highest attrition rate--82.9 percent.

The probability values assigned to the parameter estimates, shown in Table 12, demonstrated significance in the FAST variable, such that successful completion of the FAST program was related to the lowered attrition rate.

As expected, the independent variable "A" school contributed to the low attrition rate also. For all personnel who attended "A" school in this cohort, the attrition rate was 9.3 percent. For those who successfully attended the FAST program and subsequently attended an "A" school, the attrition rate was the lowest evidenced for this cohort: 8.2 percent. The attrition rate for personnel who had not attended an "A" school increased substantially, to 31.1 percent. This result was noted with the FY92 cohort as well.

Table 12. **FY93 Accession Cohort at One Year: Analysis of Maximum-Likelihood Estimates**

Variable	Parameter	Estimate	Probability
Intercept		-1.182	0.001
VE score	< 43	-0.056	0.103
	43 - 46	0.037	0.502
	47 - 50	0.019	0.610
FAST	Non-attend	-1.316	0.001
	No increase	-0.557	0.001
	Complete	1.873	0.001
Racial/	White	-0.585	0.001
Ethnic Group	Black	0.444	0.001
	Hispanic	0.076	0.200
	Am. Indian	-0.048	0.497
	API	0.113	0.512
Gender	Female	0.255	0.041
	Male	-0.255	0.447
"A" School	Non-attend	-0.754	0.001
	Attend	0.754	0.001

The demographic variables also contributed to lowered attrition. Overall, the attrition rate for the whites was relatively high, at 30.2 percent. Successful completion of FAST dropped this rate to 18.7 percent. The attrition rate for black recruits was 25.8 percent, with a corresponding decrease to 14.2 percent for those who completed the FAST program. The estimated contribution to survival of recruits in the other racial/ethnic groups, of gender, and of the VE score by itself, were not significant to this model.

The analysis of variance test for this model, presented in Table 13, shows that the model sufficiently explained the variance in the data.

Table 13.   FY93 Accession Cohort at One Year: Analysis of Variance

Variable	Degrees of Freedom	Chi-Square	Prob.
Intercept		145.07	0.001
VE Score	2	3.01	0.222
FAST	2	216.84	0.001
Racial/Ethnic Group	4	128.43	0.001
Gender	1	0.58	0.447
"A" School	1	481.52	0.001
Likelihood Ratio	120	154.28	0.019

C.   FY92 PROMOTION OPPORTUNITIES

This aspect of the study looked at promotion rates for the FY92 accession cohort, chosen as the only cohort available for study with the minimum time in service required for promotion to paygrade E-4. Of the initial 12,844 personnel in the cohort, 2,482 had been promoted to E-4 as of April, 1995. The promotion rate was 19.3 percent overall. The rate increased to 23.4 percent for those who successfully completed the FAST program. For those who were not successful in their attempts to improve verbal skills, the promotion rate fell to 3.1 percent. For those who did not attend FAST, the rate was similar to the overall rate, at 18.9 percent. The promotion rates for the FY92 cohort are contained in Appendix E. The probability values assigned to the parameter estimates, shown in Table 14, demonstrated significance in the FAST variable, such that successful completion of the FAST program was related to the increased promotion rate.

The single largest effect of an independent variable was the result of attending an "A" school. Overall, personnel who had attended an "A" school were promoted at a much higher rate, 37.5 percent. Recruits who successfully completed FAST and went on to an "A" school were promoted at the rate of 39.2 percent, the highest promotion rate found in the study. This was an expected result, since attendance at an "A" school provides the initial skill training required to enter a rating; and, further, examinations of job skills are used to select personnel for promotion to E-4.

Although the racial/ethnic group variable was considered significant in contributing to promotion, the rates were only slightly different from the overall rate of promotion, with or without FAST attendance. It was noted that all the promotion rates analyzed here were lower than the Navy average promotion rate to E-4, with the exception of those who had attended an "A" school. This may have been due to the

**Table 14.   FY92 Accession Cohort Promotion Rates:
Analysis of Maximum-Likelihood Estimates**

Variable	Parameter	Estimate	Probability
Intercept		1.832	0.001
VE score	< 43	0.060	0.424
	43 - 46	-0.079	0.215
	47 - 50	0.019	0.639
FAST	Non-attend	-0.525	0.010
	No increase	-0.392	0.013
	Complete	0.917	0.002
Racial/	White	-0.592	0.001
Ethnic Group	Black	0.186	0.005
	Hispanic	-0.027	0.682
	Am. Indian	-0.041	0.609
	API	0.475	0.027
Gender	Female	-0.042	0.671
	Male	0.042	0.358
"A" School	Non-attend	-0.958	0.001
	Attend	0.958	0.001

time in service of the cohort. The minimum time required is 18 months; however, an average of 30 months is the Navy norm.

The analysis of variance test for this model, shown in Table 15, reveals that the model sufficiently explained the variance in the data.

Table 15.   FY92 Accession Cohort Promotion Rates: Analysis of Variance

Variable	Degrees of Freedom	Chi-Square	Prob.
Intercept	1	118.66	0.001
VE Score	2	1.99	0.372
FAST	2	11.24	0.003
Racial/Ethnic Group	4	59.84	0.001
Gender	1	0.84	0.358
"A" School	1	1,378.93	0.001
Likelihood Ratio	122	119.43	0.549

V. CONCLUSIONS AND RECOMMENDATIONS

A.   CONCLUSIONS

The objective of this thesis was to explore the relationship of the FAST program to recruit progress through the first enlistment. Logistic regression analysis has shown that successful completion of the FAST program was related to completion of recruit training, when compared with a similar cohort of recruits who did not attend FAST. Overall, the attrition rate during recruit training for successful FAST participants was low compared with the attrition rate of non-participants. Demographics also contributed to success in recruit training. For example, in FY92, women and Blacks achieved a relatively high rate of success, and in FY93, Hispanics attained a high rate of success. The entrance criteria of VE score did not appear to be related to successful completion of recruit training for the FAST attendees or the non-attendees.

Other measures of failure and success that were analyzed were attrition from the Navy during the first year of enlistment, and promotion to paygrade E-4 for the FY92 cohort. The rate at which FAST attendees left the Navy was lower than that of the control group. The lower first-year attrition, combined with the higher survival rate during recruit training, may indicate that the recruit who successfully completed the FAST program was better equipped to fulfill an enlistment obligation. FAST combined with attendance at a Navy "A" school resulted in very low attrition. However, without the inclusion of separation codes in the model, the perception of a relationship between the FAST program and separation prior to the end of an enlistment may not be accurate. For example, separation due to poor performance may be related to non-attendance of the FAST program, whereas separation due to physical disability may occur regardless of FAST participation.

37

Promotion rates were different overall between the control groups and the FAST attendees. FAST attendees were more likely to be promoted to E-4 than the recruits who did not attend FAST. The advantage of having attended an "A" school greatly increased one's likelihood of promotion. However, the limited time in service of the cohort under review may have been a factor in the overall low rates of promotion.

The FAST program seems to fulfill the objective for which it was intended: FAST provided the fundamental skills training necessary to complete recruit training. The FAST program appears to have benefitted recruits who successfully completed the course in FY92 and FY93, by contributing to lower recruit training attrition rates. The time allotted to this program is worthwhile in view of the return on investment: a higher percentage of recruits who successfully completed FAST remained in the Navy through the first year of service, than did non-participants of FAST. Additionally, the recruits who successfully completed FAST promoted to E-4 at a higher rate than those recruits who had not attended FAST. The FAST program may be a suitable route to producing skilled petty officers from recruits with below-average verbal skills.

B.   RECOMMENDATIONS

It is recommended that the FAST program continue to be available to those recruits with below-average verbal skills. Since the VE score was not significant for the success of FAST participants, no recommendation can be made with regard to modifying the entrance criterion. The basis for the entrance criterion (VE score) was unclear; further examination to determine appropriate VE score upper limits for entrance may produce better entrance standards. It may be beneficial to ensure that all personnel meeting the mandatory entrance requirement are placed in the course, due to the higher survival rate noted for successful participants.

It is recommended that additional analysis be conducted on attrition from the FY92 and FY93 cohorts, to include assignment of the interservice separation codes. A review of separation codes may provide more insight on the effectiveness of the FAST program.

Further study is recommended to determine whether FAST participation is a true contributor to higher promotion rates. It may be worthwhile to conduct such a study of the FY92 cohort after it has had an opportunity to complete the full four years of a first enlistment. This type of study would provide a more accurate presentation of promotion opportunity. It is recommended that the performance and behavior of FAST participants be documented over time to determine trends in racial/ethnic group learning abilities. Additionally, follow-up surveys or interviews with successful FAST participants may provide further information on what was or was not effective in the FAST program.

APPENDIX A.   FY92 ACCESSION COHORT SUBGROUP COMPLETION AND SEPARATION RATES FOR SIGNIFICANT VARIABLES

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
FY92 Accession Cohort	82.5 (10,591)	17.5 (2,253)
FAST	81.9 (9,006)	18.1 (1,986)
FAST Attendees (SC)	92.1 (1,557)	7.9 (134)
FAST Attendees (NI)	17.4 (28)	82.6 (133)
White male, No FAST	79.5 (4,175)	20.5 (1,078)
White male, FAST (SC)	91.2 (536)	8.8 (52)
White male, FAST (NI)	9.7 (7)	90.3 (65)
White female, No FAST	81.5 (437)	18.5 (99)
White female, FAST (SC)	94.3 (50)	5.7 (3)
White female, FAST (NI)	50.0 (5)	50.0 (5)
Black male, No FAST	83.1 (2,511)	16.9 (511)
Black male, FAST (SC)	91.6 (542)	8.4 (50)
Black male, FAST (NI)	17.8 (8)	82.2 (37)
Black female, No FAST	89.6 (362)	10.4 (42)
Black female, FAST (SC)	100.0 (50)	0.0 (0)
Black female, FAST (NI)	42.9 (3)	57.1 (4)

FAST (SC): Successfully completed FAST

FAST (NI): Attended FAST, no increase to verbal skill abilities

APPENDIX B. FY93 ACCESSION COHORT SUBGROUP COMPLETION AND SEPARATION RATES FOR SIGNIFICANT VARIABLES

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
FY93 Accession Cohort	80.0 (10,294)	20.0 (2,575)
No FAST	79.7 (9,080)	20.3 (2,318)
FAST Attendees (SC)	90.3 (1,186)	9.7 (127)
FAST Attendees (NI)	17.7 (28)	82.3 (130)
White, No FAST	77.0 (4,406)	23.0 (1,319)
White, FAST (SC)	87.6 (430)	12.4 (61)
White, FAST (NI)	20.5 (16)	79.5 (62)
Black, No FAST	81.2 (3,032)	18.8 (702)
Black, FAST (SC)	90.9 (492)	9.1 (49)
Black, FAST (NI)	14.3 (8)	85.7 (48)
Hispanic, No FAST	83.1 (1,142)	16.9 (232)
Hispanic, FAST (SC)	92.5 (147)	7.5 (12)
Hispanic, FAST (NI)	11.8 (2)	88.2 (15)

FAST (SC): Successfully completed FAST

FAST (NI): Attended FAST, no increase to verbal skill abilities

APPENDIX C.   FY92 ACCESSION COHORT AT ONE YEAR: SUBGROUP COMPLETION AND SEPARATION RATES FOR SIGNIFICANT VARIABLES

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
FY92 Accession Cohort	77.0 (9,888)	23.0 (2,956)
No FAST	76.3 (8,390)	23.7 (2,602)
FAST Attendees (SC)	87.3 (1,477)	12.7 (214)
FAST Attendees (NI)	13.0 (21)	87.0 (140)
White male, No FAST, No "A" School	64.1 (2,012)	35.9 (1,125)
White male, No FAST, "A" School	87.1 (1,843)	12.9 (273)
White male, FAST (SC), No "A" School	84.7 (311)	15.3 (56)
White male, FAST (SC), "A" School	88.7 (196)	11.3 (25)
White male, FAST (NI), No "A" School	5.7 (4)	94.3 (66)
White male, FAST (NI), "A" School	100.0 (2)	0.0 (0)
White female, No FAST, No "A" School	70.5 (294)	29.5 (123)
White female, No FAST, "A" School	89.1 (106)	10.9 (13)

45

Subgroup		
White female, FAST (SC), No "A" School	88.4 (38)	11.6 (5)
White female, FAST (SC), "A" School	100.0 (10)	0.0 (0)
White female, FAST (NI), No "A" School	25.0 (2)	75.0 (6)

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
White female, FAST (NI), "A" School	100.0 (2)	0.0 (0)
Black male, No FAST, No "A" School	69.4 (1,196)	30.6 (528)
Black male, No FAST, "A" School	89.5 (1,162)	10.5 (136)
Black male, FAST (SC), No "A" School	83.2 (293)	16.8 (59)
Black male, FAST (SC), "A" School	91.3 (219)	8.7 (21)
Black male, FAST (NI), No "A" School	4.9 (2)	95.1 (39)
Black male, FAST (NI), "A" School	75.0 (3)	25.0 (1)
Black female, No FAST, No "A" School	81.6 (262)	19.4 (59)
Black female, No FAST, "A" School	92.8 (77)	7.2 (6)

Black female, FAST (SC), No "A" School	92.1 (35)	7.9 (3)
Black female, FAST (SC), "A" School	100.0 (5)	0.0 (0)
Black female, FAST (NI), No "A" School	28.6 (2)	71.4 (5)
Black female, FAST (NI), "A" School	0.0 (0)	0.0 (0)

FAST (SC): Successfully completed FAST

FAST (NI): Attended FAST, no increase to verbal skill abilities

APPENDIX D.   FY93 ACCESSION COHORT AT ONE YEAR: SUBGROUP COMPLETION AND SEPARATION RATES FOR SIGNIFICANT VARIABLES

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
FY93 Accession Cohort	73.8 (9,495)	26.2 (3,374)
No FAST	73.3 (8,356)	26.7 (3,042)
FAST Attendees (SC)	84.7 (1,112)	15.3 (201)
FAST Attendees (NI)	17.1 (27)	82.9 (131)
White, No FAST, No "A" School	63.3 (2,753)	36.7 (1,597)
White, No FAST, "A" School	89.0 (1,224)	11.0 (151)
White, FAST (SC), No "A" School	78.3 (311)	21.7 (86)
White, FAST (SC), "A" School	94.0 (94)	6.0 (6)
White, FAST (NI), No "A" School	14.9 (11)	85.1 (63)
White, FAST (NI), "A" School	92.3 (24)	7.7 (2)
Black, No FAST, No "A" School	71.4 (2,107)	28.6 (842)
Black, No FAST, "A" School	92.0 (722)	8.0 (63)

49

Black, FAST (SC), No "A" School	85.1 (384)	14.9 (67)
Black, FAST (SC), "A" School	88.9 (80)	11.1 (10)
Black, FAST (NI), No "A" School	12.7 (7)	87.3 (48)

Subgroup	Completion Rate Percent (Number)	Separation Rate Percent (Number)
Black, FAST (NI), "A" School	100.0 (1)	0.0 (0)

FAST (SC): Successfully completed FAST

FAST (NI): Attended FAST, no increase to verbal skill abilities

**APPENDIX E.   FY92 ACCESSION COHORT SUBGROUP
PROMOTION RATES FOR SIGNIFICANT
VARIABLES**

Subgroup	Promotion Rate Percent (Number)	Non-Promotion Rate Percent (Number)
FY92 Accession Cohort	19.3 (2,482)	80.7 (10,362)
No FAST	18.9 (2,081)	81.1 (8,911)
FAST Attendees (SC)	23.4 (396)	76.6 (1,295)
White, No FAST, No "A" School	7.6 (251)	92.4 (3,033)
White, No FAST, "A" School	33.7 (754)	66.3 (1,481)
White, FAST (SC), No "A" School	8.3 (34)	91.7 (376)
White, FAST (SC), "A" School	36.0 (83)	64.0 (148)
Black, No FAST, No "A" School	8.5 (173)	91.5 (1,872)
Black, No FAST, "A" School	39.4 (544)	60.6 (837)
Black, FAST (SC), No "A" School	10.5 (41)	89.5 (349)
Black, FAST (SC), "A" School	38.9 (98)	61.1 (154)

FAST (SC): Successfully completed FAST

FAST (NI): Attended FAST, no increase to verbal skill abilities

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